

Machine-generated translation of the abstract of DE 195 31 158

Procedure for the production of a temperature-stable connection.

A procedure for the production of a temperature-stable connection is described by two bodies, between which a layer from a higher-melting (rear one) and a further are arranged out in contrast to this lowmelting metal (Lo), whereby the higher-melting metal (rear one) and the lowmelting metal component (Lo) are brought in contact and warmed up by warming up to the connecting temperature (TB) under a given temperature and contact pressure process. Moistened those component (Lo), liquidbecoming first, the adding surfaces and by diffusion of the liquid (Lo) into the higher-melting component (rear one) is formed a intermetallische phase by the material of the lowmelting intermediate layer (Lo) and the higher-melting component, whereby the lowmelting component (Lo) is used by Diffusion and education of a new component (rear-Lo). After consumption of the melted portions form for these a layer with substantially higher melting point (TR) than the lowmelting component (Lo) and thus a stable positive connection one forms.

With this procedure it is intended that for the rear component one of the metals fourth to respected subgroup of the periodic system is selected and applied on a disk as first body. A lowmelting metal (Lo) of the third or fourth main group of the periodic system on a substrate becomes additional as second body.